

## Strategic Plan Summary

VMSM's strategic plan was created to help guide the museum to meet its mission: to increase the public's knowledge and appreciation of Virginia's marine environment and inspire commitment to preserve its existence. The current five-year plan was completed in January 2004 and serves to cement a common vision and action plan for the museum's staff, board and volunteers.

The three goals of the plan focus on **product, people and finances**:

- *Provide exceptional and innovative products for our diverse audiences.*
- *Exceed the expectations of our internal and external customers.*
- *Expand our financial capacity.*

These goals are supported by objectives that map our direction and lead to measurable strategies. Every museum department is covered in and impacted by this comprehensive plan. For example, objectives include:

- Provide excellence and innovation in exhibits and education programs.
- Expand research and conservation programs.
- Evaluate and strategically improve communications.
- Maximize cost efficiency.

Strategies have been prioritized over the five-year timeline. For the next two years, we will be focusing on a subset of strategies that includes the following:

- Renovate original exhibition space by summer 2005.
- **Provide ongoing educational programs to high needs audiences (minimum goal of 5,000 served annually).**
- Develop an institutional conservation action plan with internal and external projects.
- Increase number of point of sale devices by spring of 2004.

Planning was kicked off with a staff retreat, and a planning group was formed that included representatives from all areas of the museum. To set the stage, the group executed a comprehensive environmental scan: institutions across the country were contacted and specific questions were asked. The planning group also read numerous resources ranging from the American Zoological and Aquarium's *Trendsfor 2020* to Jim Collin's business bestseller, *Good to Great*. The planning team reviewed museum data ranging from financial reports to visitor zip code data to member surveys. Also relevant was a review of the City of Virginia Beach's three-year strategic plan. In the end, the city's principles are reflected in the museum's plan - systems thinking; being proactive; creating an accurate, positive community image; nurturing dialogue, relationships, and partnerships; encouraging diversity; and maintaining a quality approach.

The museum also benefited from the pro-bono services of Michael Olsen (co-author of *Strategic Management in the Hospitality Industry*), who stressed that a focus on customer service and the services and experiences that only VMSM can provide are key to a successful plan. Upon his advice, the museum brought Seif Abou Hussein, a PhD. Candidate at Virginia Tech working with Michael Olsen, to the museum for an intensive 2-day session. Mr. Hussein identified the parts of the hospitality industry planning model that are appropriate and relevant to VMSM.

The planning group then began to gather ideas, information and dreams from our stakeholders - teachers, members, staff, volunteers, board members, out-of-town visitors and the community at large. The museum convened a total of seven "Strategic Discussion Sessions." Members of the planning group facilitated these discussions and captured all input. The museum also collected information from a visitor survey that was administered by staff. The resulting strategic plan is a synthesis of ideas contributed by all of these groups. Because the number of strategies exceeds the museum's immediate capacity, the planning group prioritized them, identifying a limited and focused group of strategies to target over the next two years.

To ensure accountability, each strategy has been assigned to a member of the Museum Leadership Team (MLT). Progress in completing strategies will be monitored on a quarterly basis during regularly scheduled

ML T meetings. The success of the "Strategic Discussion Sessions" was so powerful that the museum has decided to use these on an annual basis to gather input from stakeholders. We will also continue to use surveys to monitor guest input. Progress in achieving goals is also monitored through staff evaluations, which are keyed to the strategic plan. At the quarterly meetings, the Team also will review the plan and make adjustments to strategies when needed as the external working environment evolves over time.

Until January 2004, we had been working from our 1999 strategic plan. The museum completed many strategies and made significant progress towards meeting long-term objectives. For example, one strategy was to increase profitability of museum stores. By increasing visibility through the use of display cases, increasing the use of advertisements, and focusing on customer service, the museum stores increased net revenue by 16% from 1999 to 2003. Another strategy was to improve the quality of program content. In 2003, all school programs were reviewed for accuracy and relevance of content. Wherever possible, the content was expanded to include Virginia Standards of Learning for English, Mathematics, and History. Educators were provided with additional background information and training. These revisions have resulted in positive evaluations from teachers and students.

## Narrative

### 1. Project Design

The Virginia Marine Science Museum (VMSM) serves the Hampton Roads, Virginia community, which includes the cities of Portsmouth and Norfolk. Public school children in these cities are in dire need of additional educational attention to meet the high educational standards of the Commonwealth as measured by Standards of Learning (SOL) tests. Serious socio-economic barriers to this achievement exist, as school-age children here are more likely to live in poverty, more racially diverse, and far less likely to be achieving academically than school-age children in Virginia as a whole. Numerous studies have shown that hands-on environmental education is a powerful tool for improving education in our public schools (*Hands-on Biology: A Museum-Schools-University Partnership for Enhancing Children's Interest and Learning in Science*, 2002; *Environment-based Education: Creating High Performance Schools and Students*, 2000; *Closing the Achievement Gap: Using the Environment as a Context for Education*, 1998.). The museum's three-year pilot program, *Sea Scholars*, has had remarkable success in improving students' performance and interest in science in the most troubled schools in our region.

VMSM is requesting \$149,922.28 from the Institute for Museum and Library Services (IMLS) to extend the success of *Sea Scholars* and support a community-wide environmental education program that will serve high needs students in Portsmouth and Norfolk, Virginia. The funding we request from IMLS will directly support the *Sea Scholars* program for a two year period and will also work to cement a sustainable change in the way the museum supports the community and in how the community perceives the museum.

The goals of *Sea Scholars* are to:

- Increase student knowledge and interest in science and the environment by demonstrating that science can be fun and exciting.
- Increase student achievement in science and confidence in the ability to do science.
- Foster home and community environments that support student enthusiasm for science.

To meet these goals, we will target our audience with a three-pronged approach: 1) at school; 2) at home; and 3) in the community:

I} For *Sea Scholars at School*, five participating elementary schools will be selected each year based on need (high percentage of students participating in the Federal Free or Reduced Rate Meal Program and low percentage of passing scores on the state science SOL tests. Each school will be provided with a continuum of museum-led educational programs during the school year. Having multiple learning opportunities presented through a variety of teaching tools will provide on-going reinforcement of science topics, improving the rate of retention for all students, regardless of learning style. All students will participate in the program, but we have targeted grades 3, 4, and 5 for intensive programming. All programs are developed to key to critical state science SOLs.

Experiences for schools will include the following:

Family Night events at the Virginia Marine Science Museum will engage all students, grades pK-5, along with their teachers and family members. Each school will have the entire museum for an evening to visit the aquariums, touch live animals, try hundreds of interactive exhibits, see a nature-related !MAX@ film, and enjoy crafts and other hands-on activities. This experience will get students, teachers and parents "jazzed" about being a *Sea Scholars* school and provide them with an introduction to the ecology of the Chesapeake Bay and the Atlantic Ocean.

Teacher training will be conducted for the 3rd, 4th and 5th grade teachers from each school prior to their museum-led programs to provide teachers with content, pre- and post- activities, and resources. Teachers will be able to enhance their students' experience by incorporating *Sea Scholar* activities into the class curriculum. Teachers will also receive information on community resources available from other informal education institutions, such as web sites and resource people at the federal, state and local level, to enhance their *Sea Scholars* experience.

The Ocean in Motion aquarium vehicle will visit all 3rd grade classes from each school during the fall. The *Ocean In Motion* program is composed of three elements that come together to provide a complete marine

experience emphasizing 3rd grade science Standards of Learning: an interactive assembly program emphasizing watershed and food web concepts; an opportunity to touch live invertebrates such as sea stars; and a visit aboard the truck to meet fishes native to the Bay and ocean.

- A visit to VMSM is provided for all 4th grade classes from each school. This hands-on exploration of the museum's Bay & Ocean Pavilion, Marsh Pavilion, and nature trail emphasizes 4th grade state science standards focused on adaptations, habitats, and food webs.
- Feet, Feathers, and Fur is an outreach program that will visit all 4th grade classes from each school. This program combines an interactive assembly with a hands-on classroom activity that focuses on animal adaptations and their relationship to habitat.
- Life in the Chesapeake Bay is an outreach program that will visit all 5th grade classes at each school. This hands-on program uses live animals, props, and artifacts to teach students about the diversity of life in the Chesapeake Bay.
- The Secret Garden: A Look at Oyster Reefs is a field and lab experience that will involve all 5th grade classes at each school. This program, conducted at Bay Lab located on the shores of the Chesapeake Bay, combines fieldwork, laboratory exercises, and live animal interactions for a powerful educational experience focusing on oyster reefs and conservation issues.
- Elizabeth River Princess School Visit is an outreach program presented by the Elizabeth River Project about conserving this important river that bisects the cities of Norfolk and Portsmouth.
- At Family Science Fair nights at the schools, students will share their *Sea Scholars* experiences with other students and family members through drawings, writings, displays and stories.
- Informal enrichment visits to the schools will be used to encourage science exploration and participation in *Sea Scholars* programs. The enrichment visits will impact all grades and will help excite and motivate students through presentations with animals, trivia games and interactive demonstrations.

2) For *Sea Scholars at Home*, VMSM will get family members involved, a powerful tool in building a home environment that nurtures student interest in science. The museum will engage immediate and extended family members in the *Sea Scholar* experience through three channels:

- Family Nights at VMSM will give parents, grandparents, guardians and siblings the opportunity to share the *Sea Scholars* experience during a museum visit. By seeing first-hand children's excitement and curiosity about the museum's animals and hands-on exhibits, adults will be empowered to support student interest in science
- Family Science Fair night will allow students to share their *Sea Scholars* experiences with their families. Parents will see evidence of their children's increase in science knowledge, interest, and aptitude through the *Sea Scholars* program. Students will display projects, artwork, and photos and will share their thoughts about *Sea Scholars* activities.
- Family field trips will be organized during the summer by the museum and its partners. The excursions will take families to local environmental education sites (see 3. below).

3) For *Sea Scholars in the Community*, the museum will foster community support for student interest in science. Engaging children and adults in a community setting will reinforce lessons learned during *Sea Scholars at School* and enhance the image of VMSM as a resource for all communities, regardless of socioeconomic status. The museum will engage the community in the following ways:

- The Sea Scholars Ambassadors, five high school students recruited from the same communities we are serving in the elementary schools, will participate in an in-depth training program on marine biology and teen theater every Saturday during the spring and for two weeks at the beginning of the summer. Using what they have learned about marine biology and their newly developed theater skills, the students will create and implement outreach programs for community audiences.
- Two summer outreach programs, conducted by the *Sea Scholars Ambassadors*, will be offered to Boys & Girls Clubs and community centers in low-income areas of Norfolk and Portsmouth, Virginia. Approximately 1,100 children will participate in these programs each year.

- Family field trips will complement the summer outreach programs. These environmental education trips for families involved with Boys and Girls Club programs will help connect the community with the local natural environment and with science education resources. Guided experiences will be offered to the Norfolk Botanical Garden; Nauticus, the National Maritime Center; Bay Lab at First Landing State Park on the shores of the Chesapeake Bay; the Elizabeth River Project; and the Virginia Zoo. We estimate that 160 students and family members will participate in these programs annually.

The *Sea Scholars* program will have an outcomes-based evaluation plan to measure success of the program. Student success will be measured through pre- and post-participation surveys of knowledge and attitude, pre- and post-activity quizzes for content retention, comparison of Standards of Learning test scores, and teacher evaluations. Success with family members and the community will be measured through surveys, levels of participation, and program evaluations.

## 2. Grant Program Goals

The *Sea Scholars* project addresses the grant goal of *serving as a center of community engagement* by engaging students, student families, and the surrounding community in the following ways:

1) The *Sea Scholars* project will engage the Norfolk and Portsmouth communities' high needs elementary students in a multiple-experience, environmental science-based program. We will engage this segment of the community by cultivating the students' academic success as well as their interest in the environment. In the three years that *Sea Scholars* has been a pilot program, participating schools have shown an average increase of 12% in passing test scores for science SOLs. A teacher at one school summed up their *Sea Scholars* partnership as, "...an awesome experience for the students, staff, and parents. It brought the curriculum to life!" Not only will *Sea Scholars* students benefit by improving science achievement at the elementary level, but the program also gives them the foundation for future success in school and as adults when addressing environmental issues in their community. Young people represent the future of the community, and studies have shown that the elementary age group is the most receptive of any age children to participating in environmental activities. A recent study conducted by the American Zoo and Aquarium Association (AZA) suggests "that the critical time for children to bond with nature and to transform their interest into active involvement lies in the pre-teen years." Many of the students that participate in the program respond with comments such as "I thought science was boring but this was fun!"

2) The *Sea Scholars* project will engage participating students' families through Family Night experiences at VMSM. Family Science Fairs at school and family field trips during the summer. These events allow family members to share in the *Sea Scholars* experience and to gain a better understanding of the special learning opportunity provided through the *Sea Scholars* program. During the pilot program, museum staff members have noted that the Family Night events were often the first opportunity for parents to meet their children's teachers. Parents have responded positively to the program with comments like "Because I work all day I never get to go to these places with my kids. It was great to be able to go in the evening," and "I enjoyed it as much as my children!" By gaining the support of the immediate and extended family, we are creating an environment at home where the child is encouraged to talk about and pursue *Sea Scholars* and other science studies. Also, by participating in museum-led activities and meeting the museum's educators, parents and grandparents will recognize that the museum and its staff are community resources that can provide assistance to students and adults when completing schoolwork, considering careers in science, and assessing local environmental issues.

3) The *Sea Scholars* project will engage the neediest members of the community at large through special environmental science-based programs at Boys & Girls Clubs and community centers in Norfolk and Portsmouth. These summer programs will provide year-round continuity to *Sea Scholars*, as participating schools draw students from the same neighborhoods serviced by the Clubs and community centers. The community programs will strengthen family and community commitment to science education for their youth, as the summer activities will encourage adult participation. Engaging adults is the first step in cultivating their understanding of the role science and environmental studies can play in their children's academic success and in the future well-being of their community. One school administrator commented on the *Sea Scholars* pilot:

"I've enjoyed the opportunity for families to interact in a positive environment. It was breathtaking." Residents of Norfolk and Portsmouth, regardless of socio-economic status, live within the watershed of the Chesapeake Bay, the most valuable natural resource in the region. The messages presented in the *Sea Scholars* program will help connect them to this environmental treasure, as it provides food, job opportunities, and recreational possibilities to all. Engaging the low-income segment of the community through the *Sea Scholars* program will generate awareness about our natural resources and will be a step toward building commitment to protect the community's environment.

### **3. How The Project Fits Into Strategic Plan and Mission**

Prior to 2001, the museum had limited experience reaching the most economically and academically challenged students in Hampton Roads in its quest to increase knowledge and appreciation of Virginia's marine environment. Since then, two programs - *Sea Scholars* and *Chesapeake Bay Champions* (a NOAA-funded, 2-year program to educate high needs 4th graders about the Chesapeake Bay) - have begun to change how the museum perceives the pursuit of its mission and how the community perceives the museum. This change is reflected in our vision for the institution, the goals of the strategic plan, and the specifics of our action strategies.

Input from staff, board members and the community directed the new strategic plan toward a vision of increasing the impact and relevance of the museum and its mission to a broader audience. This vision is directly reflected in two of the plan's three goals: 1) *Provide exceptional and innovative products for our diverse audiences*, and 2) *Exceed the expectations of our internal and external customers*. Even more specifically, the strategic plan calls for "providing ongoing educational programs to high needs audiences (minimum goal of 5,000 served annually)." The *Sea Scholars* project directly addresses both of these goals and the related strategy by providing a unique and effective program to an audience that has high needs, both economically and academically, and that has not historically been involved with the museum.

The *Sea Scholars* project has been developed in alignment with the museum's mission to increase the public's knowledge and appreciation of Virginia's marine environment and inspire commitment to preserve its existence. The *Sea Scholars* program has proven successful in increasing students' knowledge as well as their interest in science and the environment. Pre- and post- evaluations indicate increases (from 17% to 59%) in knowledge of marine science topics. State science SOL test scores also showed exceptional increases (averages of 11.8% and 17.8%). Comments from teachers and parents indicated that students' enthusiasm toward science was also positively affected while participating in the program. See attachments for details of evaluations, SOL test scores, and participant comments.

#### Scope and Systemic Change

Our experience conducting *Sea Scholars* over the past three years has given the museum an unprecedented opportunity to initiate new relationships with school administrators, teachers, parents and community leaders in our region. The program's success also has given us a tantalizing taste of the impact VMSM can have in the community (see attachment for performance report). With a two-year expansion and extension of the program funded by IMLS, we will build the foundation for sustaining this change in the following ways:

1) *Bond the museum to the community as an essential education partner*. During each year of the project, *Sea Scholars* will reach an estimated 3,500 elementary students in Norfolk and Portsmouth, nearly an eighth of the total students in these cities (27,643 in FY2002). We will also build relationships with their teachers and parents as well as with other community leaders. Our experience indicates that these relationships will have natural outgrowths in both the museum and the community. For example, we find that families respond to this program with enthusiasm, as evidenced by *Sea Scholars* families being spotted in the facility by museum staff and volunteers, especially during spring and summer break. We also find that community organizations and schools are beginning to turn to us for expanded relationships. For example, our *Chesapeake Bay Champions* program was an outgrowth of partnerships forged through *Sea Scholars* with Old Dominion University and local school systems.

2) *Expand the museum's capacity to teach diverse audiences*. The first years of the *Sea Scholars* project allowed us to get our feet wet working with high needs audiences. The museum's educators are eager to learn

new skills that will strengthen their instructional impact on high needs students, reflected by their keen interest in participating in museum-led trainings and soliciting advice and suggestions from professionals with expertise working with this audience. The *Sea Scholars* project has also created interest and excitement among all staff and volunteers about being a part of something that is making a difference in the community. Volunteers enjoy working the Family Nights because they get to interact with this new audience, where over 83% are families visiting the museum for the very first time.

3) *Change VMSM financial structure to make Sea Scholars an ongoing part of the museum's programmatic offerings.* The strategy of providing ongoing support for educational programs targeting high needs audiences is a top priority for the museum and, therefore, for fundraising efforts as well. IMLS funding of *Sea Scholars* will allow VMSM to continue the program while executing a two-year plan to secure \$275,000 for sustaining *Sea Scholars* in the future. Key components of that plan include:

- Raise \$50,000 in private funds. With the ongoing and well-publicized (see attachments) successes of our programs for high needs audiences, the museum is proving to our local philanthropic community the value of investing in these effective programs. In the first seven months of this fiscal year, the museum has increased private donations for serving high needs children to \$26,851, a 767% increase over the previous year's grand total of \$3,500.
- Raise \$100,000 from private foundations. The museum has hired an experienced grant writer part-time, whose sole function will be to raise funds for existing programs serving high-needs children. '
- Raise \$75,000 through the annual fund. The museum has also experienced remarkable growth in its annual fund, going from \$0 in 2000 to over \$100,000 today. Over the next two years, education programs have been targeted to receive a portion of these funds for use in programs like *Sea Scholars*.
- Finally, we are also pursuing an endowment that would fund these programs in perpetuity. We have identified potential donors and are working to make that a reality over the next two to five years.

#### **4. Strategic Plan: Process and Financial Resources.**

VMSM is located within a diverse community and is challenged with meeting diverse needs. Despite this diversity, our mission *to increase the public's knowledge and appreciation of Virginia's marine environment and inspire commitment to preserve its existence* reflects a common thread for all: the importance of the Chesapeake Bay and Virginia's ocean waters to the quality of life in the community. The current strategic plan for meeting this mission was created as a synthesis of ideas contributed by museum staff, volunteers, members, and board members, as well as teachers, out-of-town visitors, and the community at large. Input from these groups was gathered during retreats and "Strategic Discussion Sessions" and from program evaluations and visitor surveys. The museum was exhaustive in its analysis of internal and external data and benefited from the advice of consultants during the planning process. The plan is designed to give VMSM staff, board members and volunteers the tools, resources, and support to achieve our mission.

In addition to meeting the needs of the community, the strategic plan also ensures the long-term financial stability of the museum. The third goal of the strategic plan is to *expand our financial capacity*. The museum seeks to build upon effective strategies that have led to increased revenues in admissions, the IMAX® Theater, and the museum stores, with a total revenue increase in these areas of 7.68% for fiscal year 2003. The museum is also working to diversify its financial support by increasing fundraising and grant writing activities. As a result, VMSM has received significant grants from IMLS, NOAA, and NMFS. As a flexible document, the strategic plan is revised as needed to take advantage of unexpected opportunities that support the museum's financial stability. For example, the Museum Leadership Team, made up of department directors, has developed an annual business plan to evaluate potential revenue-producing activities. The team has created a procedure that calculates the potential for success at low, medium, and high rates of return for proposed projects. This plan helps us to focus our time and energy on projects that will give us the best possible rate of return and avoid those that will drain resources. Recent successes include exhibiting the *Grossology* changing exhibit, bringing an "Eco-Santa" to the museum Sunday afternoons in December, and offering popular commercial films such as *Star Wars* in the evening.

#### **5. Appropriateness of Project for Institution, Audience.**

Every year, more than 65,000 students visit VMSM, and an additional 50,000 participate offsite in outreach, *Ocean in Motion*, Bay Lab, and boat programs. The museum is committed to making the museum

and its programs accessible to all, including those who might not have access to quality education about the marine environment. As part of its newly adopted strategic plan, the museum has prioritized providing ongoing educational programs for high needs audiences.

VMSM is located in the City of Virginia Beach, one of 15 cities and counties making up the Hampton Roads region, which is the 30th largest metropolitan area in the country. For this project, we will target the two highest needs cities in the region -Norfolk and Portsmouth.

The cities of Norfolk and Portsmouth support 80 public schools. The ethnic makeup of these schools is 2% Asian/Pacific Islanders, 2% Hispanic, 27% White, and 69% Black. In this region, 57% of students are eligible for the federally funded Free and Reduced Lunch Program compared to 32% statewide. According to census data for 2000, nearly one third of the school-age children in Norfolk and Portsmouth live in poverty. The region continues to fall under the state's SOL average pass rates, particularly in the sciences, which consistently fall 10 points below the state average. The Governor has identified the 34 highest need schools in Virginia. These PASS (partnership for Achieving Successful Schools) schools have the lowest SOL scores in the state. Six of Portsmouth's sixteen elementary schools are PASS priority schools, which represents nearly 18% of the state total, even though Portsmouth has only 1.4% of the state's elementary schools.

Socio-economic barriers to achievement exist within the cities of Norfolk and Portsmouth, creating a need for additional education attention in order to meet the high education standards of the nation as a whole. To help meet this need and to apply our strategic plan, we propose to work with over 4,860 elementary and high school students, their teachers, families, and neighbors from high needs schools, Boys & Girls clubs, and community centers in these cities each year of this program.

Low performing, high needs schools are under a lot of pressure to increase student and teacher success. It is difficult for these schools to participate in, much less maximize, additional learning opportunities without resources or a support system that promotes and nurtures the experiences. The museum has been successful in the past working with high needs schools by providing specialized programming involving multiple learning experiences, where teachers, families and the community are involved in the process. Two examples are the *Sea Scholars* and *Chesapeake Bay Champions* programs.

The pilot *Sea Scholars* program worked with 15 elementary schools in its first two years. *Sea Scholars* schools showed an average of a 12% increase in their science SOL scores relative to the state's average increase of 3.4%. One participating Norfolk school increased scores from 37% passing to 75%. Through family programming, *Sea Scholars* was successful in reaching communities who had never before been to the museum. An informal survey during Family Nights at the museum found that 83% of the families from Norfolk and Portsmouth were visiting for the very first time.

*Chesapeake Bay Champions*, a 2-year program funded by NOAA, has provided meaningful Chesapeake Bay education to almost 1,500 4th grade students. Like *Sea Scholars*, Chesapeake Bay Champions has been successful working with schools from low income areas with low academic achievement by providing specialized programming involving multiple learning experiences.

Using programming techniques proven successful in previous projects, *Sea Scholars* will achieve the grant's goal of *serving as a center of community engagement* by fostering a strong relationship between VMSM and the community. In this relationship, VMSM will promote success by providing resources and continuing support that maximize the educational experience for schools, Boys & Girls Clubs, and community centers.

## **6. Project Resources: Time and Budget.**

*Sea Scholars* has become one of VMSM's signature programs, and VMSM is committed to its long-term success. VMSM has extensive experience operating major projects such as large-scale temporary exhibits, complex educational programs, and capital campaigns. We have learned to evaluate carefully the resources needed to successfully execute each project.

Timeframe. Because of the three-year pilot of *Sea Scholars*, we will be able to put the program into action immediately upon notification of funding. We have the staff infrastructure, community partnerships, and experience communicating with schools that are key to the timely execution of the project. The "Schedule of Completion" in this proposal clearly outlines the sequence of the project and is consistent with successful *Sea Scholars* schedules in the past.



Management of Resources. Over the years, the museum has received numerous grants, including AAM's Museum Assessment Program I, IMLS's GOS, Prescott grants, U.S. Department of Education grants, NOAA B-Wet grants, and numerous state awards. The education department has also received grants from the Verizon Foundation, the Chesapeake Bay Restoration Fund, the Virginia Marine Resources Commission, and other foundations. Through the administration of these grants, we have learned to manage our financial, human and material resources shrewdly. Donna White, Controller in the museum's finance department, carefully oversees all grant budgets.

Appropriateness of Budget and Cost Efficiency. The majority of the funds requested from IMLS will be used to support a coordinator and to pay for the programming that the schools will receive. The coordinator will be responsible for communicating with the schools and partners, working with museum staff to refine curriculum, conducting programs, implementing evaluation techniques, and serving as the spokesperson for the program. The museum has drawn upon its experience running *Sea Scholars* to make this proposal the most cost efficient possible. We have learned where expenditures can be reduced, transferred or shared. For example, schools are now contributing resources by providing the majority of the bus transportation.

## **7. Project Resources: Personnel.**

The *Sea Scholars* project is supported by four sub-groups of personnel: 1.) Planning Team; 2) Support Staff; 3) Operational Team; 4) Consultant Team. Each group has a distinct role in the success of the *Sea Scholars* project.

The Planning Team consists of three members of the education staff and is responsible for developing the *Sea Scholars* academic and community programs, coordinating community partnerships, and selecting audiences. The team is coordinated by Nancy Walsh (B.A. biology, M.S. evolutionary biology), VMSM's Director of Education. She has been involved in museum education and administration for 13 years. Karen Clark (B.S. biological psychology, M.S. oceanography) currently coordinates the Sea Scholars program, which has been funded through a grant from the U.S. Department of Education. Chris Witherspoon (B.S. biology, M.A. marine science education) is the Education Specialist for school programs and has 17 years experience in museum education.

The Support Staff will provide administrative and instructional support to the *Sea Scholars* project. Lynn Clements, Executive Director, has been on the VMSM staff since 1985, first as an educator and now as an administrator, and has served as a reviewer for IMLS, AAM, and NASA grants. She is the authorizing official for this grant. Michelle Joyner, Education Administrative Assistant, will assist with budget management and the filing of reports for *Sea Scholars*. She has 9 years of administrative experience at VMSM, which includes management of all education grants. Donna White, Controller, has 13 years experience in museum facility finance and has administered grant budgets at VMSM since 1995. Three curators and their staffs will provide instruction on marine biology and animal care to the *Sea Scholars Ambassadors* -Beth Firchau, Curator of Bay & Ocean Exhibits; Chip Harshaw, Curator of Marsh & Marine Mammal Exhibits; and Mark Swingle, Curator of Stranding Program & Acquisitions: They have a combined 37 years of experience at VMSM.

The Operational Team will implement, manage, and provide instruction for the *Sea Scholars* program. The team will be coordinated by the *Sea Scholars* Coordinator, a position that will be filled when funding is secured. The Coordinator position will require an individual with education in the fields of marine science or education and experience managing large projects. The Coordinator will be assisted by 10 team members. As members of the Planning Team described above, Chris Witherspoon, Education Specialist, and Nancy Walsh, Director of Education, will provide continuity between the planning and implementation phases of the project. Education Specialist CarolAnn Curran (B.A. sociology, English) will work with the coordinator to provide animal handling training for the high school students and animal programming at the Family Nights and at pre-visits to the schools. Education Specialists Karen Burns (B.A. biology), and Mike Mizell (B.S. biology) will provide instruction for teacher trainings and Family Night experiences. Curran, Burns, and Mizell have over 30 years combined experience in museum education. Volunteer Coordinator Kathleen Reed (AB. English, education) has been involved in museum and classroom education for 17 years and will facilitate VMSM volunteer participation in Family Night and other *Sea Scholars* programs. Dave Fowler (B.S. biology), Outreach and Bay Lab Coordinator, and Kristin Mullen (B.A. history), *Ocean in Motion* Coordinator, will coordinate instruction, provided by VMSM's team of educators, for the *Sea Scholars at School* programs provided for grades 3-5. Steve Kohrherr, theater program consultant, and Earl Vowell, IMAX@ Theater

Manager, will work with the *Sea Scholars Ambassadors* to develop presentation skills and two theater-based performances to be presented at Boys & Girls Clubs and, . community centers. Both have extensive performance and teaching experience in theater.

The Consultant Team will advise the Planning and Operational Teams as needed during the development and implementation of the *Sea Scholars* project. Wendy Frazier, Assistant Professor in Education at Old Dominion University, will serve as science education consultant. Laura Nelson, Science Supervisor for Portsmouth Public Schools, will serve as school education consultant, reviewing programs to ensure that we meet the needs of the students and teachers. Todd McFarlane, Director of Boys & Girls Clubs, and Steve Kohrherr, theater program consultant, will advise VMSM on the development of *Sea Scholars* community programming.

## Budget Justification.

### Salaries and Wages (permanent Staff)

Virginia Marine Science Museum is devoting a significant amount of permanent Education staff time to the project (Yr. 1: \$7068.66, Yr. 2: \$7352.66). Educators include Nancy Walsh, Director of Education and P.D. for this grant (78 hours annually), Chris Witherspoon, Schools Coordinator (120 hours annually), Carol Ann Curran, Education Specialist (77 hours annually), and the other Education Specialists to staff the Family Nights (25 hours annually). These hourly figures were based on the time we have spent historically on the program and on the assumption that Chris Witherspoon will be working with the coordinator to completely revise our teacher trainings and curriculum guides.

To implement the program, staff across VMSM are involved including Donna White, Controller (52 hours), who will oversee all financial reports; Martha Jones, Accountant (260 hours), who will be responsible for payroll, invoicing, purchase orders, payments and all other financial transactions; Michelle Joyner, Administrative Assistant (102 hours), who will be responsible for assistance to the coordinator in all aspects of the grant; Museum curators (80 hours) who are involved in the training of the high school *Sea Scholars*; Earl Vowell, theater manager (80 hours), who will help train the high school *Sea Scholars*; and finally, animal care staff (80 hours) to train and care for the animals used in multiple programs for *Sea Scholars*. The hourly estimates are based upon time spent in the past. These contributions from VMSM total \$11,940.76 for Yr. 1 and \$12,240 for Yr. 2. Increases in year 2 are due to a citywide merit increase of 4.05%.

In addition, 10 museum volunteers will be staffing each of the 5 Family Nights every year for a total contribution of \$1,798 annually.

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Finally, Portsmouth and Norfolk Public Schools will be contributing significant amounts of staff time. Each school will have a coordinator who works with the *Sea Scholars* coordinator to ensure program success. The schools estimated a minimum of 20 hours per coordinator at an average salary of \$20 per hour for a total of \$2000 annually. Each 3rd, 4th and 5th grade teacher will also attend the teacher training sessions and do preparations for the pre- and post-activities. A total of 60 teachers will contribute 20 hours at an average salary of \$20 per hour for a total of \$24,000. Grand total partner contribution will be \$26,000 each year.

### Salaries and Wages (Temporary Staff)

VMSM is requesting that IMLS pay \$34,199 the first year to cover the salary of a coordinator for the *Sea Scholars* program. The museum will contribute \$1,385.00 to cover the mandatory citywide merit increase of 4.05% in the second year. Also requested from IMLS is \$8,790 annually for the 5 High School *Sea Scholar Ambassadors* for their time in trainings and conducting the summer outreach performances (\$6/hr at 293 hours each). Finally, VMSM is contributing \$540 annually in part-time staff to help with the Family Nights and Teacher Trainings.

### Fringe Benefits

VMSM's fringe rate for full time staff is 30%. We are requesting that IMLS pay the fringe on the Coordinator's salary (\$10,259.70 annually), the museum will contribute fringe for the permanent staff and on the coordinator's raise for year 2 (\$5,702.83 Yr. 1, \$6,347 Yr. 2). Hourly staff members have a fringe rate of 7.65%. VMSM is requesting that IMLS pay for the fringe benefits for the High School *Sea Scholars* (\$672.44 annually) while the museum will contribute fringe for the part-time educators (\$41.31 annually).

### Consultant Fees

To hire a theater consultant to work with the High School *Sea Scholars* to develop their outreach programs, VMSM requests \$1000 annually from IMLS for a week of work spread over the spring and summer. We will be hiring Steve Kohrher, a theater education specialist who has worked with the museum on *Sea Scholars* and other successful theater programs in the past.

### Travel

VMSM has learned that high attendance at Family Nights is dependent upon transportation. Based upon that experience, we are planning for 10 buses for each Family Night. We are requesting that IMLS pay for 4 buses at \$225 (actual cost) for each of the 5 family nights (\$14500 annually) and our partner school districts

have agreed to provide the remaining buses (\$6,750 annually). VMSM will provide use of a van, maintenance on that van and gasoline for the high school students to travel to and from the Boys & Girls clubs and community centers to do their outreach programs in the summer (\$3,160 annually). The Boys & Girls Clubs have committed to providing bus transportation to take the students and their families to the summer family field trips around the region (\$1800 each year). Finally, VMSM is committed to sending the *Sea Scholars'* coordinator to a national education conference (\$1,500 each year).

### **Materials, Supplies and Equipment**

VMSM is estimating a total cost of \$1635 per year for education supplies based upon previous year's expenditures. These supplies include resources for teachers, craft supplies for Family Nights, costumes and set materials for the summer outreach programs (\$1,135 IMLS, \$500 VMSM). The museum will contribute \$500 annually, with a request that IMLS contribute \$1,135. Anima' supplies include carriers for the summer outreach programs, food and training supplies at \$750 annually (\$100 IMLS, \$650 VMSM). Finally, based upon previous years' expenditures, we will spend \$300 annually on office supplies (\$100 IMLS, \$200 VMSM).

### **Services**

VMSM is required to pay the City of Virginia Beach \$3,100 annually for every computer workstation. The museum will pay this fee for the computer to be used by the Coordinator in addition to local phone and pager fees of \$505.68 for a total of \$3,605.68. VMSM will also pay for the design, artwork and printing of a revised teacher curriculum guides for the program (\$3,500 Yr. 1, \$1500 - printing only, Yr. 2)

### **Other**

School Education Program Costs include

- *Ocean in Motion* aquarium vehicle visit at a cost of \$648 per program for each of the 5 schools for an annual total of \$3240 (\$1875 IMLS, \$1365 VMSM).
- *Visit to VMSMat* a group rate of \$5.95 for each 4th grader at a total cost of \$2380 annually (VMSM).
- *Feet, Feathers and Fur* outreach to 4th grade classes at a cost of \$70 per class (4 classes per school) for \$1,400 (IMLS).
- *Life in the Chesapeake Bay* outreach at \$70 per class for all 5th grade classes for \$1,400 (IMLS).
- *The Secret Garden: A Look at Oyster Reefs* for 5th grade classes at \$200 per program for an annual total of \$4,000 (IMLS).
- *Elizabeth River Outreach* to each school at an estimated cost of \$50 per school for \$250 annually (Elizabeth River Project, Partner).

Family Education Program Costs include the cost of providing an IMAX movie (royalties, etc.). Based upon experience, we are estimating that about half of the Family Nights will have enough participants to fill one movie and half will have enough to fill two movies for an estimate of 8 movies at \$1000 each. VMSM will contribute \$2,800 of that cost, while requesting \$5200 from IMLS. The museum is also contributing the special event use of the facility for those nights at a value of \$7,500 total.

Community Education Program Costs include the costs for taking 2 groups of 20 students and their families to

- Nauticus, The National Maritime Center for a museum visit, an education program and a boat trip on the Elizabeth River (\$920 by Nauticus, partner)
- Bay Lab at First Landing State Park for a Chesapeake Bay exploration including a beach walk, fish dissection and crafts (\$400 VMSM)
- Norfolk Botanical Garden for a tour and botanical exploration class (\$400 Botanical Garden, partner)
- Virginia Zoo for a tour through the new Africa animal exhibits (\$200 Virginia Zoo, partner)
- The Elizabeth River Project for a River Mini-Camp (\$330 IMLS).